



SOFT MATTER DAY

organized by the Peter Debye Institute for Soft Matter Physics

PROGRAM

Date: July 14, 2023

Venue: Faculty of Physics and Earth Sciences, Lecture Hall for Theoretical Physics, Linnéstr. 5,
04103 Leipzig

09:00–09:15	Meeting of the Members of the Institute
09:15–09:20	Welcome
09:20–09:40	Mechanical properties of the premature lung <u>Jonas Naumann</u> , Nicklas Koppe, Ulrich Thome, Mandy Laube, Mareike Zink
09:40–10:00	Heavy metal stabilized DNA origami <u>Ulrich Kemper</u> , Nicole Weizenmann, Wycliffe Kiprof Kipnusu, Friedrich Kremer, Ralf Seidel
10:00–10:20	Dynamic self-organization of active particles in thermally generated flow fields <u>Lisa Rohde</u> , Frank Cichos
10:20–10:40	Effects of singular quasipotential on macroscopic fluctuation theory <u>Lokrshi Prawar Dadhichi</u> , Klaus Kroy
10:40–11:05	Break (Aula)
11:05–11:25	Adipose tissue: tumor promoter and suppressor? Eliane Blauth, <u>Hans Kubitschke</u> , Daniel Hoffmann, Dorit John, Anne Hoffmann, Benjamin Wolf, Matthias Blüher, Bahriye Aktas, Josef A. Käs
11:25–11:45	Geometry controls strains competition in a confined space Victor Peris Yague, <u>Valentin Slepukhin</u> , Yuya Karita, Oskar Hallatschek
11:45–12:05	Characterization of different classes of hydrophobic anchors for binding DNA origami to lipid membranes <u>Subhasini Singh</u> , Rayehe Mamaghaniyeh, Henri G. Franquelim
12:05–12:25	The fingerprints of homogeneous nucleation and crystallization in polyamid-66 as studied by combined infrared (IR) spectroscopy and nanocalorimetry Wycliffe Kiprof Kipnusu, Evgeny Zhuravlev, Christoph Schick, <u>Friedrich Kremer</u>
12:25–14:15	Poster Session and Lunch (Corridor/Aula)
14:15–14:35	Entropic contributions of collagen network elasticity trigger invasion of non-invasive breast cancer cells Jiranuwat Sapudom, Philipp Riedl, Maria Schrickler, Raymond Chin, Liv Kalbitzer, Steve Martin, Klaus Kroy, <u>Tilo Pompe</u>
14:35–14:55	How many polymer chains form a crystal? <u>Wing Kit Or</u> , Alaa Hassan, Martin Treß
14:55–15:15	Examining biophysical processes on titania surfaces <u>Jan Frenzel</u> , Stefan G. Mayr
15:15–15:55	Break (Aula)
15:55–16:15	Ultrafast twist measurements resolve short range dsDNA translocation during ATP-driven initiation of DNA sliding by EcoP15I <u>Martin Göse</u> , Emma Magill, Fiona Diffin, Mark D. Szczelkun, Ralf Seidel
16:15–16:35	Growth and flow properties in cancer tissues <u>Mario Merkel</u> , Josef A. Käs
16:40–18:00	Poster Session (Corridor)
18:00	Barbecue